MDE May 25 & 26 2016

Item/Analysis	Included	Not Included	Comments
Conceptual model	**X**		Extensive conceptual model that includes a general overview of typical ozone formation in Maryland, a literature review of studies that examine the role of wildfires on downwind ozone, and the meteorology, O_3 and NO_x concentrations and satellite smoke observations for the days leading up to, during, and after the exceptional event dates. (Pages 16-46)
Supporting documentation statement pertaining to Exceptional Events Rule and cause of wildfire	**X**		One paragraph defining the event as "natural", and one paragraph defining the event as "not reasonably controllable or preventable" (Page 100)
Concluding statement – including public notice statement	**X**		Public notice posted on May 26th (Page 100)
At least **one** of the following:	-	-	-
Trajectory analysis (e.g. HYSPLIT)	**X**		120-hr forward trajectory starting on 1600 May 20, and 120-hr back trajectory starting on 1200 May 25 (Figure 35)
Satellite Imagery of plume with evidence of plume impacting ground	**X**		CO figures 42 and 46
All of the following:	-	-	-
Q/d (≥100 tpd/km)	**X**		Q/d = 4.1 (Table 4)
Comparison of event O_3 concentration with non-event (e.g. 99th percentile, or concentration is one of the 4 highest within the year)	**X**		99th percentile - For 2012-2016 ozone season: 3 monitors on May 25, 5 monitors on May 26 (Table 6)
At least **one** of the following:	-	-	-

Evidence of changes in spatial/temporal O_3 and/or NO_x patterns	**X**		NO_x and NO_y timeseries (Figures 47-49) Spatial changes in O_3 (Figure 18)
Photographs of ground-level smoke at monitors		**X**	
Concentrations of supporting ground-level measurements (CO, PM (mass or speciation), VOCs, or altered pollutant ratios)	**X**		$PM_{2.5}$ (figure 44), CO (figure 46), O_3:NO_x (figure 49)
At least **one** of the following:	-	-	-
Similar day analysis	**X**		Pages 96-99, Table 7
Statistical regression model(s)		**X**	
Photochemical model(s)	**X**		CMAQ model used without fire emissions (pages 90-94, figures 51 and 52)

*All tiers

*Tiers 2 & 3

*Tier 3